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Armacost & Royston Inc.

2005 ARMACOST AVE., WEST LOS ANGELES 25, CALIF.

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U.S. DEPARTMENT OF THE INTERIOR



Arm Roy

Fine Orchids

I N D E X

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WE HAVE made this catalogue as simple as possible so that all may understand just what to expect as to sizes and prices of our plants. Of course ARM-ROY quality is always the highest.

We are offering bare root seedlings grown in benches in fir bark. We also have some seedlings of the same varieties potted in osmunda for those who do not grow in fir bark. The price of the plants grown in osmunda is slightly higher because of the greater cost of handling.

We are making every effort to obtain the most modern stud stock available. Combined with our proven Tetraploid and Diploid stock you are assured of the finest plants to be had.

You are welcome to inspect or select from our many greenhouses at any time. Our sales staff are all practical growers and they are always available to help you make your selections as well as assist you with your cultural problems. We have in our display room many Botanicals and other Plants, as well as a complete stock of all essential supplies for the orchid grower.

Our greenhouses are open every day in the year. Hours 8:30-12:00, 1:00-4:00. You will enjoy your visit as every day is a flower show at Arm-Roy.

Mail orders, large or small, are given most careful attention.

Armacost & Royston has been in the orchid business for more than forty years and has withstood the test of time. We endeavor to give everyone the best possible service.

ARMACOST & ROYSTON, INC.
WEST LOS ANGELES 25, CALIFORNIA

INTRODUCTION

Owing to the difference in climatic conditions in various parts of the United States, it is impossible to give specific instructions for the successful culture of Cattleyas and allied hybrids such as Laelio-cattleyas, Brasso-cattleyas, or any other types of orchids for that matter. It is obvious that the same rules could not apply in the States of Oregon and Washington where humidity is usually high, and in the arid southern States such as Arizona. The following, therefore, are general rules that, if followed, will contribute to success in the culture of these plants. Orchids are not delicate plants, as is usually supposed, and will grow well if given ordinary care.

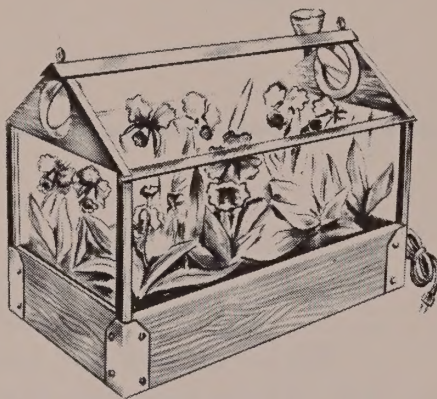
ENCLOSURE. The first question most people ask is what kind of enclosure do I need? Provide the kind of enclosure that you feel you can afford but remember that your collection will grow and it is cheaper to build a place large enough than it is to make additions afterwards. Choose a location as near as possible free from shade of your house and trees and those of your neighbors, for in such a location you will stand the best chance of providing the degree of shade that fits the growing methods you choose to employ. Provide a degree of shade that will be relaxing

without being depressing to the average human being. In cool, damp climates one may use more sunlight than in hot, dry ones. A good guide is the color of the leaves on your plants. If dark green, too much shade; if olive green, just right; if yellow green, too much light.

WARDIAN CASE. A wardian case is simply a glass box in which conditions of temperature and humidity can be controlled more easily than on the window sill or other outside location. These cases can be easily constructed by building a solid bottom of boards and four stationary sides and hinged lid of ordinary win-

dow sash, with a few holes bored in the bottom of the sash for ventilation. Place a metal container on the bottom for wet sand, gravel, or coke, arrange the plants on a rack over this container and they are ready to grow and bloom. The size of the case will have to be determined by the space available and where the plants can get the proper light.

WINDOW CULTURE. Choose a window exposed to considerable sunlight and provide thin curtains or other means of filtering the light so that the plants are not exposed to the full strength of direct sun rays. Place glass or metal vessels in the windows and put the plants on wire or wood-slat racks over these vessels. Gravel or charcoal should be placed in the vessels and kept moist at all times. Evaporation from these materials will provide humidity for the atmosphere. The root system is watered simply by pouring water on top of the pot until it drips at the bottom. An atomizer will supply a satisfactory spray for the leaves, or the plants may be taken to the kitchen sink and sprayed. Room temperature should be kept as nearly as possible between 65 and 75 degrees. Temperatures comfortable to humans are usually also comfortable to orchids.



HOW WE PRICE *Arm-Roy* CATTLEYA ORCHID PLANTS

Plants listed in the catalog are priced according to the size of pot A. B. C., and variety — out of flower. The newer crosses are listed in the smaller sizes while the older ones are shown in the larger sizes. Generally speaking, a plant will be mature enough to flower when it has reached 4" size.



A 1½" — 2 years old B 3" — 3-4 years old C 4" — 5-7 years old

D Back bulb division

CULTURAL SUGGESTIONS FOR CATTLEYAS

For many years those who grew Cattleyas thought or talked and wrote as if they thought that one must possess a number of special senses in order to even attempt the task of growing orchids. Now thousands of amateurs throughout the nation have thoroughly debunked this theory. Perhaps there was some excuse for the early growers forming this opinion when we consider the uniqueness and astounding beauty of orchids. So unique, so beautiful that the early growers could not quite consider them as plants in the normal sense and instead of employing the principles of culture of plants familiar to them they attempted to formulate a new set of procedures with little or no data to work on, became completely confused themselves, and confused everyone else. Amateurs have been successful in growing orchids in a wide variation of enclosures all the way from a glass box in the living room, an out-of-doors enclosure that was hardly big enough to turn around in to some quite spacious and artistically constructed greenhouses. First of all, remember that orchids are plants. Don't be afraid of them.

GREENHOUSE TEMPERATURE

The ideal temperature for Cattleyas in the greenhouse is about 84 degrees mid-day on bright days in summer in most parts of the country, and about 63 degrees at night. These are safe temperatures for California throughout the year. In the Northern and Eastern States, winter temperature

may range from 65 degrees to 75 degrees mid-day and in the low 50's at night. Some growers have good luck with even lower temperatures, and if you are one of them so much the better. The important thing to remember is that if the day temperature is low then that at night should be lower; if the day is warm then the night temperature should be up a little.

HUMIDITY. A good guide for humidity is that an orchid house should be comfortable to people all the time they are walking in it, but if one stands still for a few minutes, they should perspire a little. From 50 to 70% relative humidity in the daytime is desirable.

WATERING. The subject of when to water and when to withhold water from the growing media of orchid plants has been a much mooted question for many years gone by, and so the best that one could hope for in any set of cultural instructions would be to accomplish some alleviation of the fear of attacking this task. The degree of dryness the growing media should reach before water is applied to it may be determined in many ways; by hefting the pot and determining the dryness by weight, or lifting it up completely and looking at the bottom of the pot. Be sure the media is thoroughly dry before watering and then water thoroughly. Be careful with large pots, 5½" and 6". The above instructions are for plants

growing in osmunda. If fir bark is used as a growing media it is not advisable to allow the plants to dry out as much as you would in osmunda. If plants in fir bark are allowed to dry out too much no matter how much water you put on, it will not get to the center of the pot. It will run down the sides and out of the bottom of the pot leading you to believe that you have soaked the plant, but the center will be dry. Small plants from 2½" to 5" should be watered about twice a week. Larger pots once a week depending on the weather.

POTTING. Potting should be demonstrated. Our only advice is to pot your plants firmly and at the first sign of satisfaction that you have done a good job, leave it alone. The above suggestion is for osmunda. Potting with fir bark is as simple with orchids as with any other plant. Just pack it in around the roots as firmly as possible.

SPRAYING. A spraying program every month or so with one of the commercial orchid sprays, such as Malathion, will provide adequate pest control.

These instructions are basically for Cattleyas, but thousands of amateurs throughout the nation have demonstrated that *Cypripediums*, *Phalaenopsis*, *Dendrobiums* and other orchids, and other plants, will grow side by side under conditions similar to these described here.

LAVENDER CATTLEYAS

3648	C. TETHYS (<i>C. Annie J. Lines</i> x <i>C. Ardentissima</i> , <i>Colossal</i>) One of the finest ARM-ROY hybrids ever produced. (See picture on cover). Fine dark lavender, some very dark. Growth strong and good. Free flowering. Shape and texture very good. Fall and winter but somewhat variable. A few divisions of our first cross available at times.	4"	\$12.50
		4½"	15.00
		5"	17.50
		5½"	20.00
		6"	22.50
		7"	27.50
4237	LC. ESCONDIDO (<i>Lc. Integrity</i> x <i>C. Enid v. Amazon</i>) Flowers with medium lavender sepals and petals. Large, well formed, deep lavender, lip with broad yellow gold veins fusing to pale yellow in the throat. Carried on stems of majestic proportions. Flowering season winter.	4½"	\$15.00
		5"	17.50
		5½"	20.00
		6"	22.50
4277	LC. MEM. WALTER L. ARMACOST (<i>Lc. Cuesta</i> , <i>Colossus</i> x <i>C. Tityus</i> , <i>Patriarch</i>) The growth habit is robust yet compact. Large flowers of exceptional size, form, and substance with brilliant lavender sepals and petals. Rich frilled deeper lavender lip with pronounced yellow-gold veins. Season is mid-winter. Many of these have already won awards.	4"	\$12.50
		4½"	15.00
		5"	17.50
		5½"	20.00
		6"	22.50

LAVENDER CATTLEYS (Cont.)

4420	LC. CHISHOLM TRAIL (Lc. Elissa, Gloriosa x C. Tityus, Patriarch)	5" \$17.50 5 1/2" 20.00 6" 22.50
	An excellent commercial flower. Dark colors with rich yellow veined throats. Season winter.	
4536	LC. FRED B. CASTATOR (Lc. Dorothy Fried x C. Ardentissima, Colossus)	5" \$17.50 5 1/2" 20.00 6" 22.50
	A late summer and early fall bloomer. Graceful long stems and exquisite dark flowers with rich gold markings predominate.	
4575	LC. BAGDAD (Lc. Morvyth Magnifica x C. Peetersii, very fine) (Bare root)	5" \$15.00 6" 20.00
	Those that we have flowered have all been dark lavender resembling Lc. Morvyth in shape and size. Season fall.	
4658	C. FAMOSA (C. Remy Cholet x C. Tityus, Patriarch)	4 1/2" \$12.50 5" 15.00 5 1/2" 17.50 6" 20.00
	We are proud to present this re-creation of a truly wonderful Arm-Roy origination. Exquisitely formed sponsoring lavender, purple and gold in lavish perfection for the winter and spring cut-flower market.	
4716	LC. HELEN VELIZ (Lc. Dorothy Fried x C. Enid, very fine)	4 1/2" \$15.00 5" 17.50 5 1/2" 20.00 6" 22.50
	The Arm-Roy strain of C. Enid contributed largely to the fame of our organization. Its combination with the spectacular Arm-Roy creation Lc. Dorothy Fried is indeed a happy one. Flowering results exceptionally fine.	
4771	LC. ALLAN-A-DALE (Lc. Integrity, Steadfast x Lc. Savitar)	5" \$15.00 5 1/2" 17.50 20.00 6" 20.00 22.50
	We have flowered a few of this cross and the sepals and petals are a rich lavender. Darker lip with a rich golden throat. Some are of award quality. Shows great promise. Season seems to be winter. (Potted in Fir Bark)	
4797	C. INDIAN WELLS (C. Dupreana x C. Enkidu Gordicimo)	3 1/2" \$10.00 4" 12.50 5" 15.00 6" 20.00
	Medium Lavender. Darker lip with gold in throat. Very good shape and substance. The few we have flowered bloomed in May. (Prices are for bare root plants)	
4815	LC. TECOLOTE (Lc. Elissa, Piedmont x C. Dupreana, Centaur)	3" \$ 7.50 3 1/2" 10.00 4" 12.50
	Dark lavender flowers with darker lip. Gold eyes in throat. Late fall.	
4863	LC. PARITY (Lc. Paradisio x Lc. Integrity, Fine)	5" \$15.00 5 1/2" 17.50 6" 20.00
	Medium shades of lavender. Rich gold veining in throat. Good form and substance. Late winter.	
4864	LC. WYATT EARP (Lc. Paradisio x C. Prospector Var. Western Horizon)	5" \$15.00 5 1/2" 17.50 20.00 6" 20.00 22.50
	When C. Prospector finds the right mate, the growth habit is a delight to the eye of the "Orchidist." This truly is a happy combination. Rich lavender flowers, deeper lavender lips with yellow gold marking. Winter. (Prices are for plants potted in fir bark. Potted in osmunda slightly higher.)	
4879	LC. COCHISE (C. Remy Cholet, Orig. x Lc. Savitar, Hercules)	5" \$15.00 5 1/2" 17.50 20.00 6" 22.50
	Medium lavender sepals and petals. Darker lavender lip with gold veining in throat. Good shape and substance. Season mid-winter. (Prices are for plants potted in fir bark. Potted in osmunda slightly higher.)	
4880	LC. LOLA LANE (C. Enid #2828 x Lc. Paradisio)	5" \$15.00 5 1/2" 17.50 20.00 6" 22.50
	Medium lavender sepals and petals. Darker lavender lip. Very good shape and substance. Season variable. (Prices are for plants potted in fir bark. Potted in osmunda slightly higher.)	
A-262	LC. DOROTHY FRIED X LC. GITCHE MANITO	OSMUNDA 1 1/2" \$1.75 2" 3.50 BARE ROOT 2 1/2" \$4.00 3" 6.50 5 1/2" 20.00 6" 22.50
	Medium to dark lavender flowers of good shape and substance. Season summer.	



LC. MEM. WALTER L. ARMACOST
Lc. Cuesta var. *Colossus* x *C. Tityus* var. *Patriarch*

LAVENDER CATTLEYAS (Cont.)

	OSMUNDA	BARE ROOT
A-276 LC. MORRO ROCK VAR. STORM CLOUD X C. LABIATA VAR. CAMPSON		1 1/2" \$1.50
Here is a very good controllable cross. Dark lavender. Normal season, fall.		
A-288 LC. INDRA X LC. MEM. WALTER L. ARMACOST #262		1 1/2" \$1.50
Here indeed is a happy combination. The Lc Indra should enrich the gold markings in the throat of Lc. Mem. Walter L. Armacost, and darken the lip. Medium to dark lavender flowers of very good shape and substance. Season winter.		
A-292 LC. TAHOE VAR. SUNSET X LC. MEM. WALTER L. ARMACOST #265	1 1/2" \$1.75	
This is similar to cross A-288, but should have richer markings in the throat. Season winter.		
A-295 LC. MEM. WALTER L. ARMACOST VAR. INTEGRITY, A.M., X C. LABIATA VAR. HERCULES	1 1/2" \$1.75 2" 3.50	1 1/2" \$1.50 2 1/2" 4.00 4" 12.50 5" 17.50
We expect this to be a very good controllable cross. Both parents are vigorous growers and very prolific. Medium to dark lavender flowers. Normal season late fall.		
A-328 C. REMY CHOLET VAR. VIVICANS X LC. MEM. WALTER L. ARMACOST		1 1/2" \$1.50 2 1/2" 4.00 4" 12.50 5" 17.50
This should be a very good cut flower for the Christmas season. Medium to dark lavender flowers of good shape and substance.		
A-370 C. PROSPECTOR A-288 X LC. MEM. WALTER L. ARMACOST #281		1 1/2" \$1.50
Lc. Mem. Walter L. Armacost #281 is one of the darkest we have seen of this cross. Combined with C. Prospector it should produce some outstanding lavender flowers. Season winter.		
A-377 C. BONANZA VAR. SCARLET O'HARA X C. PROSPECTOR VAR. ROTUNDA		1 1/2" \$1.50 2 1/2" 4.00
C. Prospector Var. Rotunda flowers for us in April. Combined with C. Bonanza, which is an early Spring bloomer we hope for a good lavender cut flower for spring.		
A-384 LC. DERRYANE X C. PROSPECTOR VAR. ROTUNDA		1 1/2" \$1.50
Here is another combination that we hope will result in rich lavender flowers for early spring.		

CATTLEYAS - ALBAS

WHITE SEPALS AND PETALS. COLORED LIP

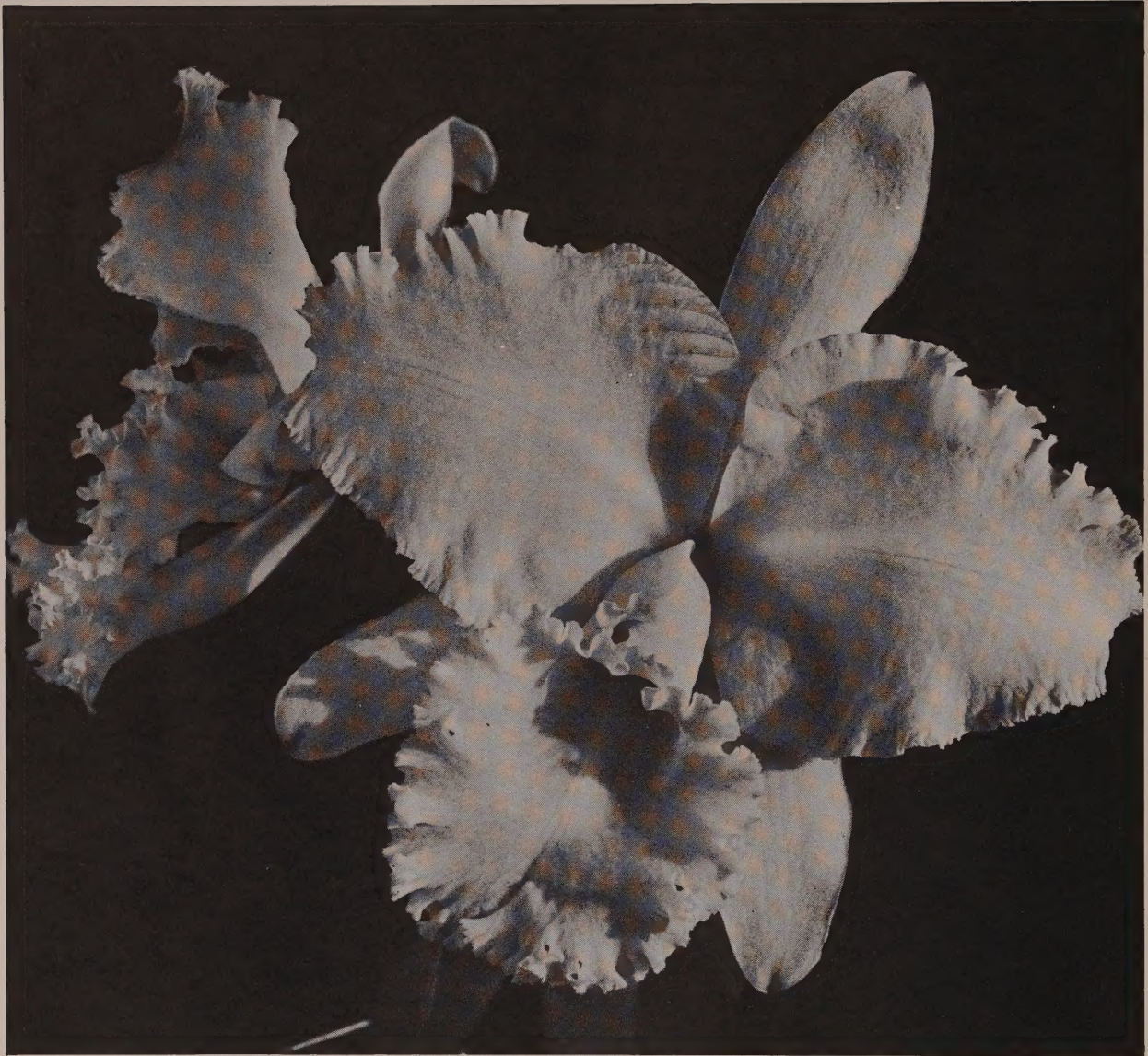
3931 C. ALICE BELDING (<i>C. Mary Chilton alba</i> x <i>C. Vivian alba</i>)	5"	\$15.00
A clear white with bright solid purple lip. Predominantly summer. Resembles	5 1/2"	17.50
<i>C. Gigas</i> F.M.B.	6"	20.00
4043 C. HURON (<i>C. Mossiae Reineckiana</i> x <i>C. Nutley alba</i>)	5"	\$17.50
Compact, free growing alba. Of pleasing size and shape, the lip is reminiscent of a very fine form of <i>Reineckiana</i> . Season winter and spring but variable.	5 1/2"	20.00
	6"	22.50

CATTLEYAS ALBAS (Cont.)

- | | | | |
|-------|--|--|---|
| A-326 | C. HURON X C. KITTYWAKE
Here is a combination of two superb Albas. Both parents have very good shape and substance. Season late fall to winter. | OSMUNDA
1 1/2" \$1.75 | BARE ROOT
1 1/2" \$1.50
4" 12.50
5" 17.50 |
| A-399 | C. ALICE BELDING #300, X LC. BURDINE JOHNSON
C. Alice Belding is a strong grower and a prolific producer. It lacks a little in substance. The introduction of Lc. Burdine Johnson should improve the substance and keeping qualities of C. Alice Belding. Season early summer. | 1 1/2" \$1.50
2 1/2" 4.00
4" 12.50
5" 17.50 | |

CATTLEYAS — Pure White

- | | | | |
|-------|--|---|---------------------------------------|
| 3921 | C. MT. SHASTA (C. Estelle alba, very fine var. x C. Bebe White)
This cross has fully lived up to our expectations. It is large, has good substance and texture. Winter and early spring flowering. | 5" \$17.50
5 1/2" 20.00
6" 22.50 | |
| 3922 | C. WHITE SAIL (C. Olive Pierson x C. Bebe White)
Large flowers. Clean, solid white with much less yellow in the throat than the average white. Late fall. | 5" \$17.50
5 1/2" 20.00
6" 22.50 | |
| 4026 | C. EDITHIAE (C. Suzanne Hye alba x C. Trianae alba, Bromhill)
It may be possible to make C. Edithiae with finer parents but we doubt it. The plants offered are extremely well bred and, of course, C. Edithiae is a fine winter pure white Cattleya of fine quality. | 5" \$15.00
5 1/2" 17.50
6" 20.00 | |
| 4761 | C. BARBARA BILLINGSLEY #1 X C. ESTELLE ALBA, CYNOSURE.
Beautiful pure white flower with rich gold flush high in the throat. The habit will be free flowering and easy to build into specimen plants. Season is fall and winter. | 5" \$17.50
5 1/2" 20.00
6" 22.50 | |
| A-321 | C. EDITHIAE #275 X C. BOB BETTS VAR. CAMERON
This cross should produce some very good whites for exhibition as well as for commercial. Season late fall to winter. | OSMUNDA
1 1/2" \$1.50 | BARE ROOT
1 1/2" \$1.50 |
| A-324 | C. WHITE SAIL X C. BOB BETTS VAR. CAMERON
Here is a good commercial as well as exhibition type. C. White Sail is a prolific bloomer. C. Bob Betts Var. Cameron is one of the most prolific C. Bob Betts we have ever seen. Season late fall to winter. | 1 1/2" \$1.50
2 1/2" 4.00 | |
| A-325 | C. ESTELLE ALBA, CYNOSURE X C. BOB BETTS VAR. CAMERON
For those of you who are interested in Tetraploids this is a good combination. Both parents are Tetraploids. We have taken Chromosome counts from some of these seedlings and to date they have all been Tetraploids. Some good stud stock should result from this cross. Outstanding White flowers. Season late fall to winter. | 1 1/2" \$6.00
2" 10.00 | |
| A-327 | C. MT. SHASTA VAR. AVALANCHE X C. BOB BETTS VAR. CAMERON
Another good white cross. We expect fine exhibition as well as commercial size flowers. Should be more prolific than cross A-325. Season late fall to winter. | 1 1/2" \$1.75
2" 3.50 | 1 1/2" \$1.50
2 1/2" 4.00 |
| A-352 | C. FLORENCE PATTERSON X C. BOB BETTS VAR. CAMERON
This should produce very fine white flowers and be very prolific. Season late fall to winter. | 1 1/2" \$1.50 | |



C. BOB BETTS VAR. CAMERON (*C. Bow Bells* x *C. Mossiae Wagneri*)

This *C. Bob Betts* has been used in a number of our white crosses. It has been counted and found to be a Tetraploid. It is a very vigorous grower and one of the most prolific we have seen. Although the picture shows only two flowers on the spray it produces up to four flowers of the same size on one spray.

C. Bob Betts Var. *Cameron* has been used with Diploids for the most part, with the exception of our cross A-325 which is with *C. Estelle Alba*, *Cynosure*, which also is a Tetraploid. We have counted a number of seedlings of A-325 and found them all to be Tetraploids.

CATTLEYAS — Brassocattleya Types and Yellows

4205	BLC. NACOUCHEE (C. Estelle Alba x Blc. Headon)	5" ——— \$17.50 5 1/2" 20.00 6" 22.50	
	This produces a Brassocattleya blooming in the wintertime. With enough of the Brassocattleya left to give large, beautiful lips. Estelle supplying substance and shape. Colors, pastel shades. Several plants from this cross have won awards.		
4912	SLC. AUTUMN DELIGHT (Lc. S. J. Bracey, Lodestar x Slc. Anzac, Orchidhurst) We have flowered a few of this cross and so far they resemble Slc. Anzac. However, some are bronze to rich sunset hues. Season fall and winter. Bare root.	3 1/2" ——— \$ 8.50 4" ——— 10.00 4 1/2" 15.00 5" 17.50	
A-1	BLC. GOLDEN FEATHER (C. Probity x Blc. Joyance)	3" ——— \$ 7.50 3 1/2" ——— 10.00 4 1/2" 15.00 5" 17.50	6" 22.50
	The few we have bloomed have had clear yellow sepals and petals. Dark red lip with two gold eyes in throat. Season fall. (Plants potted in osmunda.)		
A-2	BLC. OROVILLE (Blc. Joyance x C. Dowiana Aurea)	3" ——— \$ 7.50 3 1/2" ——— 10.00 4 1/2" 15.00 5" 17.50	6" 22.50
	Those that have bloomed had clear yellow sepals and petals. Dark red lip. Medium size flower. Season fall. (Plants potted in osmunda.)		
A-111	C. TRIUMPHANS X BLC. JOYANCE	2" ——— \$ 3.50 3" ——— 7.50 4" 12.50 5" 17.50	
	Should produce flowers from greenish-yellow to deep bronze with red lips. Summer.		
A-143	LC. S. J. BRACEY V. LODESTAR X LC. WINEMA ALBA	2" ——— \$ 3.50 3" ——— 7.50 4" 12.50 5" 17.50	
	Should be bronze to yellow sepals and petals with dark lavender lip. Season late summer to fall.		
A-147	C. DOUSABEL X BLC. JOYANCE	2" ——— \$ 3.50 3" ——— 7.50 4" 12.50 5" 17.50	
	We are frank to say that this is highly speculative. C. Dousabel should improve the shape of Blc. Joyance. Color bronze to yellow shades with red lip. Summer.		
A-300	BLC. NACOUCHEE VAR. PRINCESS X LC. MEM. WALTER L. ARMACOST, VAR. INTRIPID .		OSMUNDA FIR BARK
	It is rather difficult to improve on Blc. Nacouchee, but here we hope to get a darker Brasso and still retain the fine growth and prolific flowering of Blc. Nacouchee.	1 1/2" \$1.50 2 1/2" 4.00	
A-308	BLC. PASTEL #271 X C. PEARL HARBOR VAR. BUNKER HILL	1 1/2" \$1.75	1 1/2" \$1.50 2 1/2" 4.00
	This is an experimental cross. The Blc. Pastel is not a pure white Brasso, but very near pure white. We hope for some near white to Pastel shades of pink in a medium size Brasso. Season late summer to fall.		
A-343	LC. MEM. WALTER L. ARMACOST #262 X BLC. NORMAN'S BAY VERY FINE VARIETY		1 1/2" \$5.00
	For those of you who are looking for a Tetraploid Brasso here is one to bank on. Seedlings counted to date have all been Tetraploids. Should be superb dark Brassos with gold veining in throat. Late fall to winter.		
A-364	BLC. PASTEL, A.M., O.S.S.C. X C. MT. SHASTA VAR. AVALANCHE		1 1/2" \$1.50 2 1/2" 4.00 4" 12.50 5" 17.50
	This is an experimental cross. Similar to A-308 excepting that we expect large well-shaped flowers. Season late fall to winter.		

BIFOLIATE TYPE ORCHIDS

		OSMUNDA	BARE ROOT
A-37	C. STARFIRE (C. <i>Snowsong</i> x C. <i>Vesper</i>)	3" \$ 7.50	3" \$6.50
	A medium size white of the cluster type. Very good shape and substance. Season late fall to winter.	3 1/2" 10.00	3 1/2" 8.50
A-39	C. EL CERRITO (C. <i>Henrietta Japhet</i> x C. <i>Snowsong</i>) . .	3" \$ 7.50	3" \$6.50
	Similar to A-37 but somewhat larger flowers. Should be more prolific. Season late fall to winter.	3 1/2" 10.00	3 1/2" 8.50
A-221	C. PORTIA (C. <i>Bowringiana</i> x C. <i>Labiata</i> v. <i>Thanksgiving</i>)	1 1/2" \$1.75	
	An old time favorite. Flowers are medium to dark lavender. Season fall.		
Mature Divisions of C. <i>Porcia</i> and C. <i>Portia</i> are available.			
	Regular stock — 2 bulb plants — Per plant . . .	\$10.00	
	Varietal named — 2 bulb plants — Per plant . . .	35.00	
	Larger plants. Prices on request.		
A-245	C. BOB BETTS X C. CLAESIANA	2" \$3.50	
	Medium size white of the cluster type. There is much interest shown in this type of flower and we feel that it will be very popular. Season winter.		
A-311	C. LITTLE MOE (C. <i>Priam Very Fine</i> x C. <i>Porcia</i> Var. <i>Cannizaro</i>)	1 1/2" \$1.75 2" 3.50 4" 12.50 5" 17.50	1 1/2" \$1.50 2 1/2" 4.00 3" 6.50 6" 22.50
A-312	C. LITTLE MOE (C. <i>Porcia</i> Var. <i>Cannizaro</i> x C. <i>Priam Very Fine</i>)	1 1/2" \$1.75 2" 3.50 4" 12.50 5" 17.50 6" 22.50	1 1/2" \$1.50 2 1/2" 4.00 3" 6.50 3 1/2" 8.50
	Here is a remake of a very interesting cross. A-311 and A-312 are reciprocal crosses. Medium to dark lavender. Medium size flowers on tall arching sprays. Season fall.		



C. PORTIA (Bifoliate Type Orchid)



C. EL CERRITO

C. Henrietta Japhet x C. Snowsong



CYP. MARGARET MacCAULL

Chesham x Doris Black

The Cypripedium Orchid—

is considered the easiest to grow of the many kinds of orchid plants. This lovely orchid takes its name from the Greek, meaning "Venus Slipper." All of its species can be identified by the pouch, or slipper-like lip of the flower. The flowers are long lasting and the colors are breath-taking, varying from white through butter-yellow to deep purple-brown. The attractive variations of the markings make this an ever interesting, ever popular plant. The principal blooming seasons are Fall and Winter.

If you could step into a house of these lovely and charming slipper orchids, with their individual variations of marking, you too would want to own a few plants. It is our opinion that this beautiful orchid has not been utilized to its fullest advantage. It is valuable for making floral arrangements and corsages for informal wear.

Cypripedium prices quoted in this catalog are for flowering sized plants in four and five inch pots.

CULTURAL INSTRUCTIONS FOR CYPRIPEDIUMS

Osmunda is a standard potting medium for all varieties of Cypripediums. However, we have been using a potting mixture of one part fine silt to three parts finely screened fir bark with very good results. The plants require more shade than do Cymbidiums. In cool, damp climates more sunlight should be provided than

in hot, dry climates. The color of the leaves is a good indication as to whether or not correct lighting is being provided. Dark green leaves—too much shade; olive-green leaves—correct lighting; yellow-green leaves—too much light.



CYPRIPEDIUMS

The following are considered warm growing varieties and should do well in warm climates. They grow as well for us as our cool growing varieties. Nearly all of the following varieties flower several times a year. Prices are per plant with an average of three to four growths.

ALBION (<i>Astarte x Niveum</i>)	\$25.00
This is a very near perfect white Cypripedium.	
ASTARTE (<i>Insigne Sanderæ x Psyche</i>)	\$22.50
White. Splashed citron green on the lower part of the dorsal and petals.	
CHASTITY (<i>Astarte x Nell Gwyne</i>)	\$27.50
An exceptionally fine white Cypripedium.	
F. C. PUDDLE FCC-RHS AM (<i>Actæus Bianca x Astarte</i>)	\$50.00
Excellent shape and texture, glistening white except for tinting of pale yellow on the staminode. Rounded, niveum type lip.	
ROSY DAWN AM-RHS (<i>Gwen Hannen album x Astarte</i>)	\$30.00
Amplly proportioned and well balanced, this hybrid is porcelain white, exquisitely tinged with blush. There are rose specklings at the base of the sepals and petals and the lip is white with a pink flush.	

WHITE CYPRIPEDIUMS ARE IN LIMITED QUANTITY. ORDERS ACCEPTED SUBJECT TO PRIOR SALE.

ALMA GEVAERT (<i>Lawrenceanum V. Hyeaenum x Maudiae</i>)	\$12.50
Similar to Cyp. Maudiae but of a softer shade of green. Very attractive. Stronger growing and very free flowering.	
CLARE DE LUNE AM-RHS (<i>Emerald x Alma Gevaert</i>)	\$40.00
This very lovely form of Maudiae Mag. bears immense flowers, having white dorsal, streaked in green with green pouch and petals. The very best obtainable variety of this type.	
GOWERIANUM GRATRIXIAE (<i>Curtisii x Lawrenceanum</i>)	\$10.00
The green veins on the dorsal of this Cypripedium are against pure white and precisely arranged. The petals are similarly marked but become solid in color as is the pouch.	
HOLDENII, W'BIRT VAR. (<i>Callosum, Sanderæ x Maudiae</i>)	\$10.00
This is very similar to Cypripedium Maudiae. Perhaps a softer green.	
HARRISIANUM V. SUPERBUM, G. S. BALL'S VAR. (<i>Barbatum x Villosum</i>)	\$20.00
This beautiful Cypripedium is almost entirely Indian red in color. There is but a touch of green in the central area and a slight fusion of perilla purple in the dorsal veins. The small area of white in the upper dorsal emphasizes by strong contrast the dark coloring. The entire flower has a shiny shellacked appearance and eye-lash trim. It is a very free bloomer with beautiful mottled foliage.	
MAUDIAE VAR. MAGNIFICUM FCC-RHS (<i>Callosum, Sanderæ x Lawrenceanum Hyeaenum</i>) .	\$12.50
Probably the most profitable cut-flower Cypripedium, this green and white hybrid blooms throughout the entire year. Beautiful mottled foliage.	
ROSSETTI VAR. MAGNIFICUM (<i>insigne, Sanderianum x Maudiae</i>)	\$20.00
This lovely yellow bloom has very light green at its dorsal while the upper third is white.	



CYP. F. C. PUDDLE FCC-RHS AM

Actaeus Bianco x Astarte



CYP. DAMARIS
Germaine Opoix x Spicerianum

**THE CYPRIPEDIUM PLANTS ON THIS PAGE
ARE ESPECIALLY PRICED AT \$10.00 EACH
FIVE PLANTS FOR \$40.00
APPROXIMATELY FOUR GROWTH PLANTS**

CAPPAMAGNA (*Cardinal Mercier x Nubia*)

Petals and pouch are reddish brown with yellow trim. The base of the dorsal is apple green which changes to a white background overlaid with perilla purple.

CORSAIR (*Niobe x Nitens*)

Large size. Natal brown pouch. Petals natural brown and yellow-green. The dorsal is yellow-green at the base shading into white and lined with deep purple.

DRACO VAR. ROYAL OAK (*Hera x insigne*)

With almost identical sepal and dorsal this free bloomer offsets with interest a pair of petals and a pouch of plain Indian red. The dorsal and sepal spots are dark Indian red on fields of apple green and white.

GLENARM (*Thrush x Germaine Opoix*)

Glenarm is a strong free-blooming Cypripedium. The typical waxy dorsal has a vivid dark Indian red color fusing over apple green to perilla purple to white. The sepal repeats the deepest red color of the dorsal blending to a dull apple green the same combination of which covers the pouch.

HADRIAN (*Beacon x LEEANUM*)

A very good bloomer is Hadrian whose basic color throughout is olive yellow subdued by brighter apple green veins in the slightly spotted dorsal and intensified in the petals and pouch tip, while the upper pouch is Prussian red.

HESTIA (*Cyclops x Lady Dillon*)

Dorsal is green with brown spots. Edge of dorsal white. Petals and pouch brown.

MARTIN (*Bourton Lady x Swallow*)

The sharp coloring of large dark Indian red spots over apple-green veining and plain white helps to make this massive free bloomer attract the eye. In the petals it repeats the combination to a less intense degree and adds shadings of russet borrowed from the pouch, solid in that color.

MME., ALBERT FEVRIER (*Germaine Opoix x Insigne*)

The dorsal is green with reddish brown spots. Center of petals green with brown spots. Outer edge of petals Indian red. Pouch Indian red.

THE MAJOR, BECKTON'S VAR. (*Gaston Bultel x Harrisianum, superbum*)

The beautiful dorsal of this bloom presents a study in design. The white edges contrast with the mass of vinaceous purple, accentuated by a center dividing line of shiny deep Indian red.



CYP. LEEANUM CLINKABERRYANUM

Insigne x Spicerianum

**THE CYPRIPEIDIUM PLANTS ON THIS PAGE
ARE ESPECIALLY PRICED AT \$7.50 EACH
SIX PLANTS FOR \$37.50
APPROXIMATELY FOUR GROWTH PLANTS**

BEDFORDIAE (*Actaeus v. Revoluta x Shogun*)

Bedfordiae is characterized by a field of large irregularly placed dark spots beautifully gracing a superb wide dorsal of yellow-green over white. The pouch and petals are subdued sorghum brown and citron green.

CYCLOPS (*Actaeus x Fulshawense*)

A wide, square-like pouch and broad look describe this flower, a good bloomer of medium size. The color scheme is not vivid but combines a neutralized dark Indian red, sorghum brown and apple green. There are very interesting large dark freckles on its wide dorsal face.

GOLIATH (*Insigne, Harefield Hall x Troilus, Amy Moore*)

A large flower of the Harefield Hall type, this bloom shows dull yellow-green and sorghum brown coloring in the pouch and petals, accented by a more vivid green dorsal which provides an excellent background for many dark irregular size spots. It is a free bloomer.

KING ARTHUR (*Bingleyense x Monsieur de Curte*)

One of the best cut-flower Cypripediums, this dark, average sized free bloomer has Hessian brown petals and pouch, void of any trim, and a similarly colored dorsal blending to light perilla purple and finally to a faint showing of white.

LEEANUM CLINKABERRYANUM (*Insigne x Spicerianum*)

The dorsal is green with wide edging of white. Pouch is brown. Petals green fusing to brown. Very prolific. Flowers in November and December.

LEEANUM SUPERBUM (*Insigne x Spicerianum*)

Similar to above excepting that it is later flowering.

PITCHERIANUM (*Harrisianum x Spicerianum*)

Brown with white edge on dorsal. Very prolific.

PYRAMUS (*Hera v. Euraydes x Mrs. W. Mostyn*)

Large bloom. Pouch and petals a combination of mahogany and Nile green. Dorsal green at base, shading to white and heavily spotted with perilla purple.

QUEEN OF THE BELGIANS (*Cynthia x Monsieur de Curte, Alportense*)

Pouch and petals of soft deep Corinthian red blended in part over sorghum brown, supplemented by the soft sorghum brown to dull perilla purple spots daubed at random over the white and faint apple-green dorsal.

SUNDOWN (*Anak x Lady Dillon*)

Sundown displays a well shaped white dorsal splashed with green-yellow symmetrically lined with deeper apple-green veins. It is covered by varied sized dark Indian red spots thickly concentrated in the center and gradually thinning out to nothing toward the edge.



CYP. GERMAINE OPOIX
Fairrieanum x *Madame Coffinet*

CYPRIPEDIUMS

Easy on the Budget Varieties

\$5.00 EACH

FOUR FOR \$15.00

ALMA (*Actaeus x Hureum*)

Yellow-green with brown markings.

ALABASTER (*Alcibiades, superbum x Godseffianum*)

Medium size. Pouch and petals green fused with purple. Dorsal white with green at base and much light purple spotting.

BARONIAL (*Shogun x The Baron*)

This is a free-blooming Cypridium of dull sorghum brown and pale apple green accented by vivid dark Indian red dorsal spots.

CALUNA (*Cardinal Mercier x Luna*)

A medium sized crisp looking Cypridium whose basic color is a bay brown covering pouch, petals and part of the dorsal. The dorsal background is snow white amply splashed with perilla purple to brown to yellow-green. It varies often becoming either speckled or solid in color and ranges from vivid to soft coloring.

GERMAINE OPOIX (*Fairrieum x Madame Coffinet*)

Green dorsal with brown markings. Outer edge white tinged with reddish-brown. Pouch brown fading to green. Petals green to reddish-brown.

INSIGNE GLADYS X INSIGNE LAURA KIMBALL

Yellow-green with white edge on dorsal. Very prolific.

INSIGNE, HAREFIELD HALL

Light green dorsal with brown spots. White edging. Pouch and petals light brown.

KITTY (*Swinburnei x T. B. Haywood*)

Kitty is a well-shaped, medium-sized bloom. The pouch is Indian purple with a light apple green tip. The apple green predominates in the dorsal with veins of deep Indian purple.

ROBERT THE DEVIL HYBRID

Green dorsal with brown spots. White edging. Brown petals.

ST. ALBANS (*Antigone x Harrisianum*)

Mahogany color. Dorsal fusing from red to white on outer edge.

SIR REDVERS BULLER (*Insigne x Smithii*)

The pouch and petal ends are lightly tinted of Bordeaux and the central part of the petals and sepal are light lumiere green with carefully dotted lines in burnt lake.



CYMBIDIUM TINSEL VAR. KILLARNEY

Pearl Mag. x Babylon, Castle Hill

The Cymbidium Orchid...

Cymbidium orchid flowers are long lasting – from four to eight weeks, with long, graceful flower spikes. They come in a wide range of colors, or, you might say all colors of the rainbow, with ten to thirty flowers on each spike. No orchid collection is complete without a few plants of Cymbidiums, but be sure you purchase dependable varieties from a dependable firm. Some varieties are difficult to flower, or produce flowers of poor quality.

Our offerings are divisions of proven plants flowering in our greenhouses or lath houses. With our large stock of awarded plants, breeding plants, show varieties and commercial cut flower plants we can fill your every need. Prices are now within the reach of all and are quite in line with other species of orchid plants.



CULTURAL SUGGESTIONS FOR CYMBIDIUMS

Cymbidiums and many varieties of Cypripediums will grow well in the open in many parts of the United States, side by side and under such a wide range of conditions as to have caused wide dissension among amateurs and some professionals as well on the subject of ideal conditions for them. However, it is generally considered now that if one follows more or less a few standard rules successful culture is assured. First of all, provide a light open soil mixture so that the water will drain freely. This may be accomplished by a mixture of $\frac{1}{3}$ peat moss, $\frac{1}{3}$ sand and $\frac{1}{3}$ fir bark.

Ideal light intensity is that produced in a lath house constructed so that the laths are the space of one lath apart. The reason for this is that as the sun moves, the shade of the laths will move along the leaves providing periods of lower light intensity of about the correct degree.

If your growing medium is well drained the plants will take water about once a week in the summertime. A good way to determine the degree of dryness that should be reached before watering is to take a handful of soil

from just beneath the surface and squeeze it. If it forms a cake the soil is too moist for watering. If it does not form a cake then it is time to water.

In areas where freezing conditions are encountered during the winter months Cymbidiums may be grown by a combination glass house and out-of-doors culture. In this case it is better to employ pot culture and the same soil mixture recommended above or a bit more fibrous. In summer grow them under lath or trees that will afford the above light intensity and bring them inside when the outdoor temperature reaches the low forties at night. Night temperature of 50 degrees to 55 degrees is recommended for Cymbidiums. If placed in the same house with Cattleyas or Cypripediums give them the position with the greatest amount of light.

Fertilizing with fish emulsion or high nitrogen fertilizers during the growing season is beneficial, tapering off in the fall. Fertilize sparingly at frequent intervals rather than a large quantity at one time.



CYMBIDIUM TINSEL VAR. HARMONY

Pearl Mag. x Babylon, Castle Hill

CYMBIDIUMS

High Quality Varieties

	PRICE RANGE PER BULB	
ADELE SANDERS (<i>Alexanderi</i> , W'birt FCC-RHS x <i>St. Alban</i> , <i>Princess Beatrix</i>) . . .	\$12.50	\$35.00
Yellow tones . . . uniformly good . . . large, well-shaped flowers.		
ALBANIA (<i>Albanense</i> x <i>Alexanderi</i>)	\$ 5.00	\$25.00
Blush white to pink shades . . . with deeper lip . . . good producer.		
ALEXANDERI (<i>Eburneo-Lowianum</i> x <i>insigne</i>)	\$ 5.00	\$25.00
From white, blush white to cream . . . well known variety of proven worth.		
BLUE SMOKE (<i>Lowianum</i> x <i>Mirabel</i>)	\$ 2.50	\$ 5.00
Fine greens. Some with reddish lip. Very prolific.		
BLUE SMOKE V. GREEN MEADOW (<i>Lowianum</i> x <i>Mirabel</i>)		\$20.00
Good green . . . reddish lip. One of the best Blue Smokes.		
BRAMHOPE (<i>Alexanderi</i> , W'birt Var. FCC-RHS x <i>Curlew #4</i>)	\$15.00	\$25.00
Light yellow, pink spotted lip; very fine flower. Best characteristics of its parents.		
CLARE ARMSTRONG (<i>Alexanderi</i> , W'birt FCC-RHS x <i>Mirelle</i>)	\$10.00	\$25.00
Very fine variety . . . ivory to blush white . . . with showy deep pink to red lip. Good size and substance.		
DORCHESTER (<i>Alexanderi</i> x <i>Tityus</i>)	\$10.00	\$20.00
Very large . . . blush flowers with deeper lip . . . tremendous grower.		
FLYCATCHER (<i>Alexanderi</i> , W'birt FCC-RHS x <i>Delphine</i>)	\$10.00	\$20.00
Greenish yellow whites with attractive deep pink lip . . . large, good shaped flowers . . . very prolific.		
GRACE MITCHELL (<i>Alexanderi</i> , W'birt Var. FCC-RHS x <i>Apollo #4</i>)		\$25.00
Pastel pink, darker lip. Large, good shape and texture.		
ILKLEY MOOR (<i>Bodmin Moor</i> x <i>Pauwelsii</i> , <i>Comte de Hemptine</i>)	\$ 7.50	\$15.00
Bronze overlaid with green . . . very large spikes . . . bearing many flowers . . . good grower.		
JANETTE (<i>Alexanderi</i> , W'birt FCC-RHS x <i>Joy Sander</i>)	\$ 7.50	\$10.00
Blush to deep pink veined with green . . . very good shape and substance.		
MIRANDA (<i>Alexanderi</i> x <i>Lowio-Grandiflorum</i>)	\$ 7.50	\$15.00
Green suffused with yellow . . . excellent variety.		
PAUWELSII V. COMTE DE HEMPTINE FCC-RHS (<i>insigne</i> x <i>Lowianum</i>)		\$25.00
Very large . . . bronze . . . used extensively in breeding . . . tremendous grower.		
PERI—EXCLUSIVE OF NAMED VARIETIES (<i>Pauwelsii</i> , <i>CDH</i> x <i>President Wilson</i>) . . .	\$ 5.00	\$10.00
Very prolific . . . bronze to yellow and green . . . tremendous grower.		
PERI V. CLOTH OF GOLD (<i>Pauwelsii</i> , <i>Comte de Hemptine</i> FCC-RHS x <i>President Wilson</i>) . . .		\$20.00
This Peri, as its name denotes, predominantly golden, overlaid with bronze . . . very fine.		
PERI V. DISTINCTION (<i>Pauwelsii</i> , <i>Comte de Hemptine</i> FCC-RHS x <i>President Wilson</i>) . . .		\$20.00
This variety carries tremendous spikes with large, well formed, reddish bronze flowers.		
PERI V. GREEN MEADOW (<i>Pauwelsii</i> , <i>Comte de Hemptine</i> FCC-RHS x <i>President Wilson</i>) . . .		\$20.00
Bronze, overlaid with green . . . very fine variety.		
PRINCESS ELIZABETH (<i>Alexanderi</i> , W'birt FCC-RHS x <i>Princesse Astrid Bellissima</i>) . . .	\$ 5.00	\$25.00
Excellent pink in various shades . . . fine shape and substance.		
TINSEL (<i>Pearl Mag.</i> x <i>Babylon</i> , <i>Castle Hill</i>)	\$25.00	\$30.00
Our cross of Tinsel flowered in 1955 and surpassed our greatest expectations. Many fine plants resulted.		

A few divisions of Varietal named plants are available. Quotations on request.

We can usually supply plants of any of the better varieties listed above, approximately two bulbs, at from \$25.00 to \$35.00 per plant.

CYMBIDIUM SEEDLINGS

		PRICES PER PLANT		
		2 BULBS	3 BULBS	
957	PRESIDENT WILSON (<i>Lowianum Graceful</i> x <i>Alex W'Birt</i>)	\$10.00	\$15.00	4-5 B. 20.00
	A remake of an old favorite. Yellow to green.			
961	SWALLOW (<i>Alex W'Birt</i> x <i>Pauwelsii C.D.H.</i>)	\$10.00	\$15.00	20.00
	Another old favorite. Beautiful pastel shades.			
963	BANNOCK BURN (<i>Madeline Afterglow</i> x <i>Alex W'Birt</i>)	\$12.50	\$17.50	20.00
	The few we have seen have been pink to rose blooms on long arching sprays.			
966	BALMORAL (<i>Madeline Canberra</i> x <i>Babylon Castle Hill</i>)	\$12.50	\$17.50	20.00
	Very fine. Rose shades.			
1004	JADE (<i>Alex W'Birt</i> x <i>Pearl Mastiff</i>)	\$15.00		25.00
	Long arching sprays. Heavy texture. Beautiful greens, yellow, and white.			
1008	GWEN SHERMAN (<i>Miretta Glendessary</i> x <i>Alex W'Birt</i>)	\$15.00		25.00
	Large heavy textured flowers of fine form in color range from white and pink to yellow.			
1018	CALIFORNIA (<i>Blue Smoke Mandarin</i> x <i>Alex W'Birt</i>)	\$15.00		25.00
	The few we have seen have been rich yellow with crimson bar on the lip. This cross gives promise of being a vigorous grower and free flowering.			
1019	JOHN BIRT (<i>John Ruck</i> x <i>Alex W'Birt</i>)	\$15.00		25.00
	Very good rose-pink to white shades.			
1020	ALEX W'BIRT X CITADEL	\$15.00		25.00
	Should be white to pink shades.			
1021	LUTESCENS X ALEX W'BIRT	\$15.00		25.00
	This should be a very good gold and yellow variety. We expect green tones and possibly some whites.			
1022	EDNA COBB (<i>Profita Mardi Gras</i> x <i>Balkis Silver Orb</i>)	\$15.00		25.00
	Mostly pinks and whites with many pastel color combinations.			
1024	LILLIAN STEWART (<i>Balkis Silver Orb</i> x <i>Carisona Glendessary</i>)	\$15.00		25.00
	Beautiful shades of pink have resulted from this hybrid.			
1025	JUNGFRAU (<i>Alex W'Birt</i> x <i>Eagle Heritage</i>)	\$15.00		25.00
	A remake of an old favorite. Whites, mostly. Some with light pink shading.			
1030	KARACHII (<i>Reginald V. Sun Maiden</i> x <i>Alex W'Birt</i>)	\$15.00		25.00
	Large flowers of good shape. Pastel shades.			
1031	BENGAL BAY (<i>Alex W'Birt</i> x <i>Profita Mardi Gras</i>)	\$15.00		25.00
	Heavy textured flowers well spaced on graceful upright spikes. Pinks and whites.			

CYMBIDIUM SEEDLINGS (Cont.)

- | | | PRICES PER PLANT |
|------|--|---------------------------|
| 1032 | ROSARIO (<i>Rosette Green Gold x Alex W'Birt</i>) | 2 BULBS \$15.00 |
| | Should be principally yellow shades. Some white varieties can be expected. | |
| 1034 | ALMERALDA (<i>Alex W'Birt x Esmeralda</i>) | 1 BULB & 1 GROWTH \$ 7.50 |
| | Whites, yellows, and pastel shades. | |

PLEASE NOTE: DIVISIONS OF MANY OF THE OLDER POPULAR VARIETIES OF CYMBIDIUMS ARE AVAILABLE. WRITE FOR PRICES OF ANY YOU ARE INTERESTED IN.

PHALAENOPSIS

SEAGULL (*Dr. Henry O. Eversole x Doris*).

Flowering size plants, according to size, \$10.00 to \$25.00.

ANTHURIUMS

RED, PINK, WHITE. (Divisions, not Seedlings.)

Flowering size. According to size, \$5.00, \$7.50 and \$10.00.



CYMBIDIUM SEEDLINGS

Plant with 1 bulb and 18" leaves

Plant with 18" leaves

CONTINUATION OF THE FIR BARK STORY

BY LEO HOLGUIN

In our 1956 Arm-Roy Orchid Plant Catalogue we included a report of our experiences with Fir Bark up to that time. Since then we have continued to use Fir Bark and this is a report of our experience to date.

In the beginning we used some bark that was rather fine and had some particles of wood in it. In our previous article we stated that we had one house of large flowering size plants, and one house of seedlings, planted in fir bark. We did very well with these experiments. We had wonderful growth in the seedlings as well as the adult plants. The flowers produced by the adult plants were as good as those from plants potted in osmunda. We will not say that they were any better.

However, after about a year a problem developed. A fungus started to grow in the bark which was of the mushroom type. It was white and fluffy, matted, and kept on spreading. It was also very resistant to water. The fungus did not seem to do any damage to the plants or roots other than rob them of moisture and was in competition for nutrients rather than direct parasitism. We tried several fungicides combined with a wetting agent but had little success in stopping the growth of the fungus. We had the best results in combating the fungus simply by flooding the fir bark beds. Since the fungus seemed to be resistant to water, by mixing the fir bark and fungus by hand as water was applied we, in effect, drowned the fungus. Eventually we got rid of it but by that time the beds were in such a deplorable condition that we decided to empty the beds and start over.

After our initial experiment we located a source of Fir Bark that was free from wood. The mill removed the bark from the trees by tremendous water pressure and there was little or no wood in the bark when processed

by being ground and dried. It is then run over screens of various sizes which removes the fine material and the grades come out very clean with no more than 5% wood particles. For seedlings we use bark screened $\frac{1}{2}$ " to $\frac{1}{8}$ ", for mature plants $\frac{5}{8}$ " to $\frac{1}{4}$ ", and for Vandas $1\frac{1}{2}$ " to $\frac{3}{4}$ ". The bark, being, more or less, in chunks of various sizes, does not have the tendency to pack as tightly as very fine bark, and allows better circulation of air and water through the growing medium.

To date we have not determined whether or not the mushroom fungus will be a problem in this better type of fir bark. If we encounter it we think it will be easier to control since the flow of water will not be restricted as it was with the fine bark.

Aside from the mushroom fungus difficulty everything else about the use of fir bark in the growing of orchid plants seems ideal. We have removed seedlings from the flasks and planted directly in fir bark. The growth is phenomenal. We have had no damp off difficulties in fir bark such as we had with polypodium and osmunda. In the Spring of 1958 the fir bark will get another interesting test. We have potted one-half of one of our large cut flower production houses, for Mother's Day, in fir bark in pots. The other half of this house is still in osmunda in pots. We will keep a careful count of the flower production in each section in order to determine if it is better or equal to the 1957 production for the same number of plants all planted in osmunda.

We have a great deal of faith in fir bark. Of course, as with any new media, much experimentation is necessary. This takes longer than one or two years, at least with the culture of orchid plants.

As for watering plants in fir bark, we find

CONTINUATION OF THE FIR BARK STORY

(Continued)

that they should not be allowed to dry out as much as with osmunda or the material will not take water readily.

It is necessary to fertilize when using fir bark. We have set up a schedule of feeding every other watering with a 3-1-1 nutrient ratio fertilizer, the bulk of the nitrogen being derived from Ammonium Nitrate, not urea. This is very high in nitrogen which is what

the plants need most when planted in fir bark. Phosphate and Potassium seem to be present in ample amounts. We are still adding ten pounds of Dolomite Lime to each cubic yard of fir bark. This brings the PH up to about 5.9 and also provides Calcium and Magnesium. The fir bark should be moistened well before using. This aids in potting and the material packs better.



Thousands of Orchid Seedlings growing in Fir Bark.

YOU'VE TRIED THE REST—NOW USE THE BEST—

Vita-Bark BRAND FIR BARK



After experimenting with various brands of Fir Bark for several years we have finally located material that is by far the best we have used. VITA-BARK Fir Bark is of the best quality, free from fine material and wood. We have it in three sizes, $\frac{1}{2}$ " to $\frac{1}{8}$ ", for seedlings, $\frac{5}{8}$ " to $\frac{1}{4}$ " for mature plants, and $1\frac{1}{2}$ " to $\frac{3}{4}$ " for Vandas. We invite you to visit our greenhouses and see for yourself how well our plants are growing in VITA-BARK.

For prices see next page.

ORCHID SUPPLIES

OSMUNDA —Brown. Best Quality. Cleaned and Cut.	
Carton	\$.75
½ Gunny Sack	2.86
Gunny Sack	5.20

FIR BARK. "VITA-BARK" Brand. Highest Quality.	
	2 Cu. Ft. Sack
Seedling Grade. ½ - ⅛"	\$2.00
Adult Plants. ⅝ - ¼"	2.00
Vanda Grade. 1 ½ - ¾"	2.75

ARM-ROY CYMBIDIUM MIXTURE	
Carton	\$.75
Gunny Sack	3.00

FERTILIZERS. Water Soluble.	
Excellent for all Orchids and House Plants.	
Hyponex—1 Pound Can	\$1.00
Instant Vigoro—8 Oz. Can	.80
Ammonium Nitrate. 1#	.25
(Use with Fir Bark. Nitrogen 33.5%)	

INSECTICIDES	
Ortho MALATHION Spray. 4 Oz.	\$1.00
Orthocide Garden Fungicide	
50% Captan. 8 Oz.	1.39
Ortho Klor-10 Chlordane Dust	
10% Chlordane. 1#	.89
Cookes Slug-N-Snail. 8 Oz.	.85

CORSAGE TUBES. Clear Plastic with pin.	
\$.10 ea.	\$1.00 Doz.

ORCHID TUBES. Glass with rubber cap.	
\$.10 ea.	\$1.00 Doz.

PRUNING SHEARS. 8" Corona.	Pair \$2.89
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CORSAGE BOXES. Clear plastic.	
Small	Each \$.25
Large	Each .50

WATERING CANS. Fine quality metal.	
3 quart size	Each \$5.60
5 quart size	Each 6.50

LABELS, CELEX (Celluloid).	Per 25	Per 100
No. 16—4"x ¾"—Copper wires	\$.90	\$3.30
No. 17—5"x1"—Copper wires	1.25	4.50
No. 22—5"x ¾"—Pot labels.		
Pointed	1.25	4.50
EVERLAST Aluminum Labels—Packet of 50.....		75c

POTTING STICKS. Aluminum—Plastic Handles.	
Correct shape for efficient use.	
Large — 12" long.	Each \$2.75
Small — 9" long.	Each 2.25

STAKES —Galvanized. ⅜" Diameter.	Bundle of 25
Length.	
10"	\$.75
12"	.80
14"	1.00
16"	1.10
18"	1.25
20"	1.50

DUSTING BLOWER. ROBY DELUXE.	
Aluminum. Holds 1#.	Each \$7.89

INSECTICIDE SPRAYER	
Hudson 2 Spray. Continuous.	
20 Oz. Capacity.	Each \$2.98

FLORISTS THREAD. Green	Spool \$.35
Box of 8 spools.	2.50

CINCH TIES. Green wrapped Copper Wire.	
250 Foot Roll.	Each \$.98

REFERENCE BOOKS	Postpaid
Home Orchid Growing.	\$6.95
Rebecca T. Northen	
Orchids as House Plants.	3.50
Rebecca T. Northen	
ABC of Orchid Growing.	3.50
John V. Watkins	
Your First Orchids and How to Grow Them.	1.25

Los Angeles purchasers include 4% Sales Tax. Other California Areas 3%.
Include postage if shipment by parcel post. We will refund any excess.

ARMACOST & ROYSTON, INC.

2005 ARMACOST AVE.

WEST LOS ANGELES 25, CALIF.

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Many Arm-Roy Orchid Plants win awards. Here is BLC. NACOUCHEE (C. *Estelle Alba* x Bc. *Heaton*). This is one of our best *Brassolaeliocattleyas*. It has fine form and good substance. Colors are pastel shades. See page 9 for prices.

CONDITIONS OF SALE

Payment should accompany order unless credit has been established.

Claims for damaged shipments must be filed immediately with the carrier by the Consignee. We make every effort to pack carefully, and our responsibility ends when the shipment is accepted by the carrier.

All shipments will go out via Railway Express, express charges collect, unless we are instructed otherwise. Please state your preference as to whether you wish your order shipped in or out of pot.

Foreign shipments will be shipped via Air Express out of clay pots unless we are instructed otherwise. On the authority of your local plant quarantine station, please advise us if there are any unusual requirements pertaining to the shipment of plants into your territory or country.

Hawaiian purchasers are requested to include with their order a copy of their import permit. This permit may be obtained from the Board of Commissioners of Agriculture and Forestry, Honolulu.

Sales Tax will be added to orders being shipped to residents of California unless we have on file a signed State Resale Certificate.

Plants are offered strictly subject to prior sale.

Prices subject to change without notice.

It will be readily understood that it is impossible to keep Orchid Plants stationary with regard to pot size while they are cataloged. Potting must be done as it becomes necessary. Because of this we shall substitute sizes of plants in filling orders unless we are specifically instructed not to do so. We suggest your making a second choice in the event we are unable to supply your first choice.

We make every effort to maintain the highest standards of quality and labeling of our plants. However, having no control over the plants after they leave our greenhouses we give no warranty, express or implied, as to their productiveness or health in the hands of the purchaser. If the purchaser does not accept the plants on these terms they are at once to be returned.



Arm Roy